Mobile Hotspot (R526) User Guide

Open Mobile R526 User Guide

www.openmobilepr.com

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Thank you for purchasing the Open Mobile R526 portable router. This device doesn't need wires, cables, or software to configure it through your Web browser.

This guide describes the browser Interface that allows you to configure the R526. For information about setting up your device, device maintenance and care, etc., consult the printed Quick Start Guide that came with your device.

We recommend you read this manual before using the R526.

Part 1

Using the R526

Charging the R526 Device

Note.

The battery should be fully charged before using the R526 for the first time. We recommend an initial charge time of approximately 2 hours. When fully charged, a solid green light will appear next to 'Power' display on the device. A red or orange light indicates you need to re-charge. Included in your R526 package is an USB Power Adapter.

Opening the Browser Interface

How to Connect to the R526 (Windows Users – for MAC Instructions see the next section)

1. Turn on the R526 and ensure your WiFi is enabled on your PC or laptop. You can view your available wireless networks by going through the control panel, network connections or system tray (lower right hand corner of your screen).
2. Select "FRANKLIN_R526 XXXX" as your wireless network.

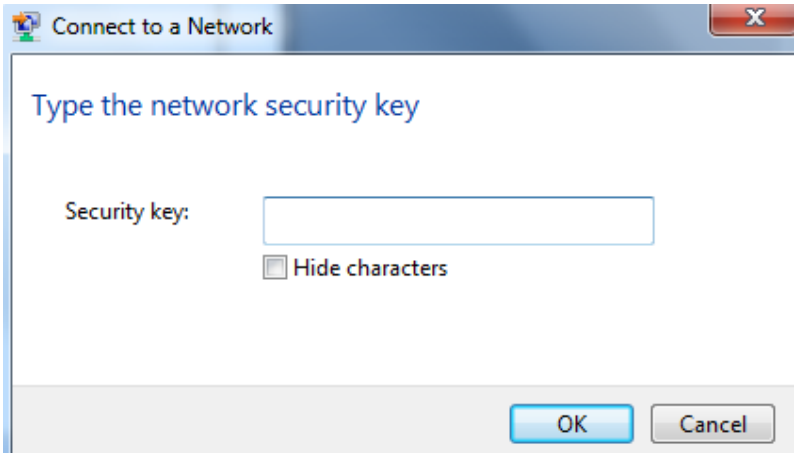
Note.

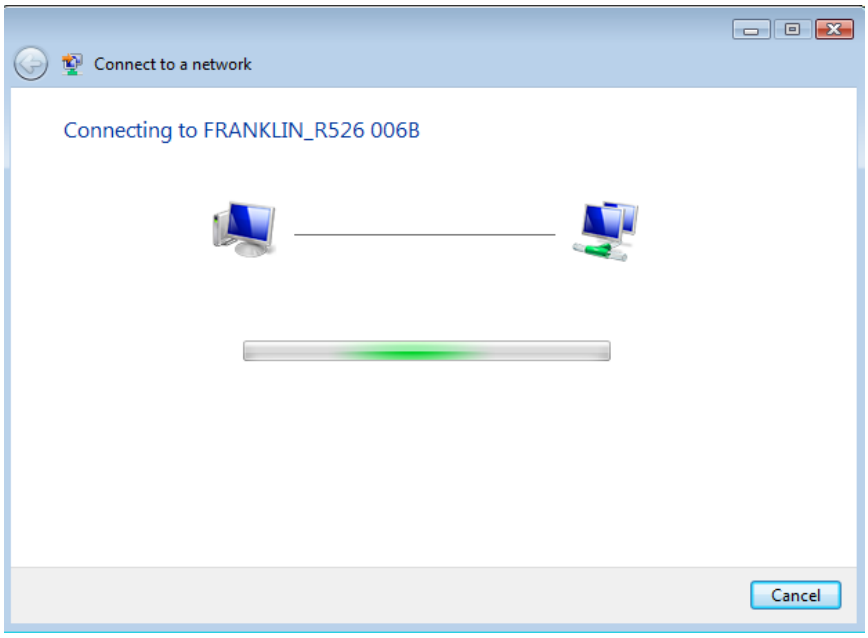
The last 4 digits, 'XXXX' of the SSID is the last four digits of your MAC address. You can find the MAC address of your R526 on the label under the battery.

.

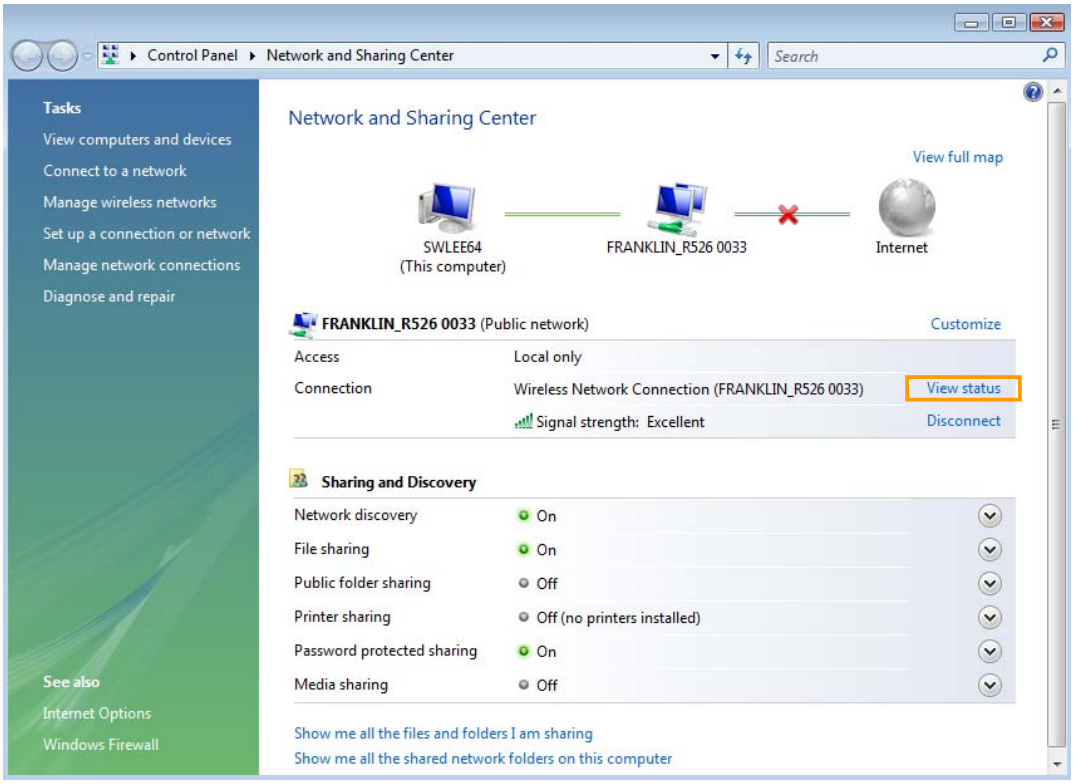
3. Click *Connect*.

The default security for the R526 is WEP 64-bit. The default security key is "12345". Enter "12345" to continue connecting to the R526. If you would like to change this security setting after you have activated your device, see the WiFi > Security setting of this document for changing security settings.

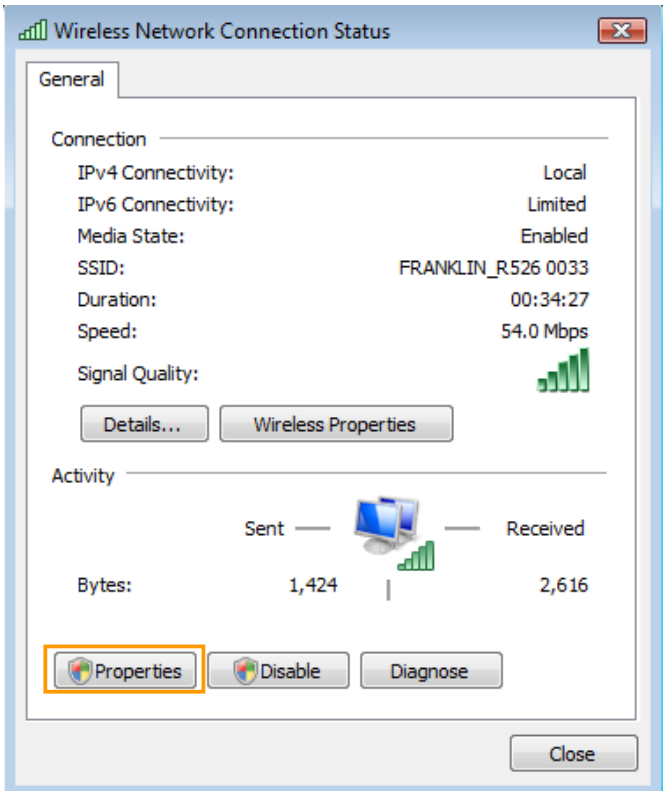


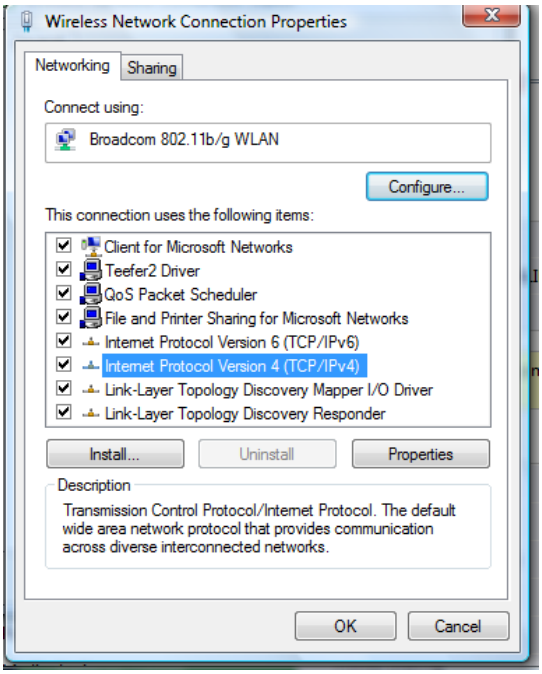


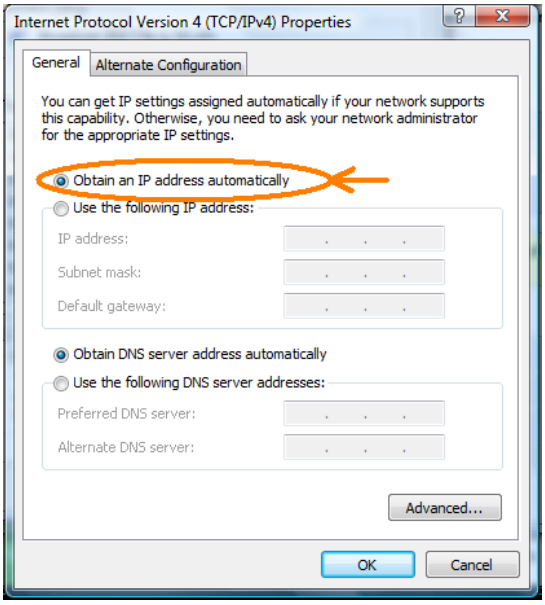
4. When connected to the R526 you will see the connection as 'FRANKLIN_R526 XXXX' – as shown below.



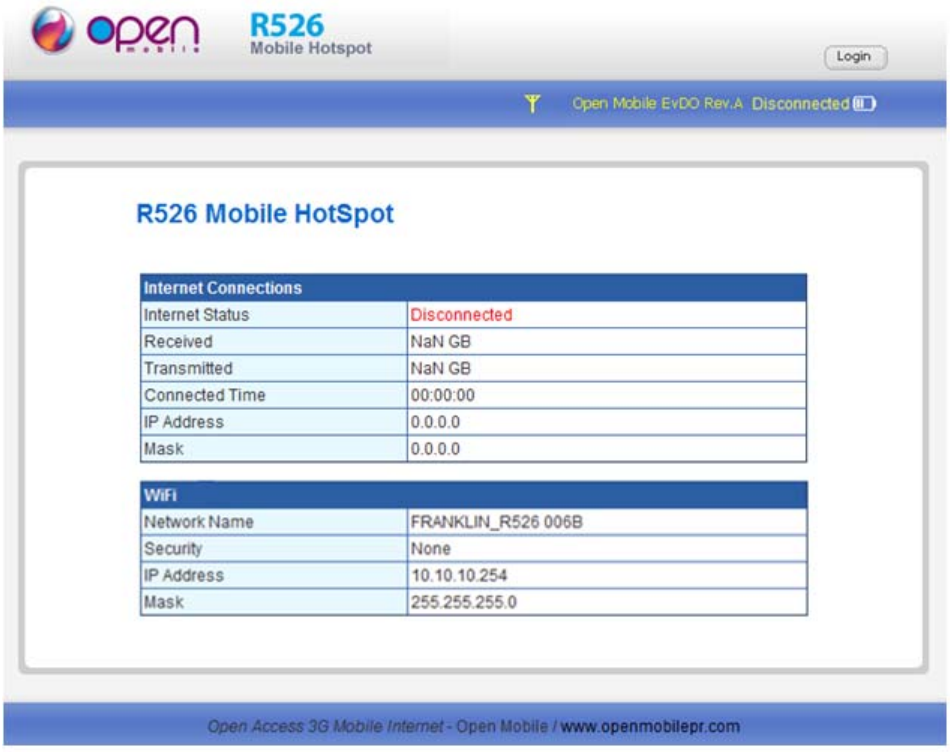
5. Before proceeding, ensure your wireless connection properties are set to 'Obtain an IP Address Automatically' For Windows XP and Vista 32-bit users, you can right-click on your wireless network, select properties, then TCP/IP properties. For Windows Vista 64-bit and Windows 7 users, you can click on 'View Status' as shown below


Wireless Network Connection Status
General
Connection
IPv4 Connectivity: Local
IPv6 Connectivity: Limited
Media State: Enabled
SSID: FRANKLIN_R526 0033
Duration: 00:34:27
Speed: 54.0 Mbps
Signal Quality:
Details...
Wireless Properties
Activity
Sent
Received
Bytes: 1,424 2,616
Properties
Disable
Diagnose
Close


Wireless Network Connection Properties
Networking
Sharing
Connect using:
Broadcom 802.11b/g WLAN
Configure...
This connection uses the following items:
Client for Microsoft Networks
Teefer2 Driver
QoS Packet Scheduler
File and Printer Sharing for Microsoft Networks
Internet Protocol Version 6 (TCP/IPv6)
Internet Protocol Version 4 (TCP/IPv4)
Link-Layer Topology Discovery Mapper I/O Driver
Link-Layer Topology Discovery Responder
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK
Cancel


Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

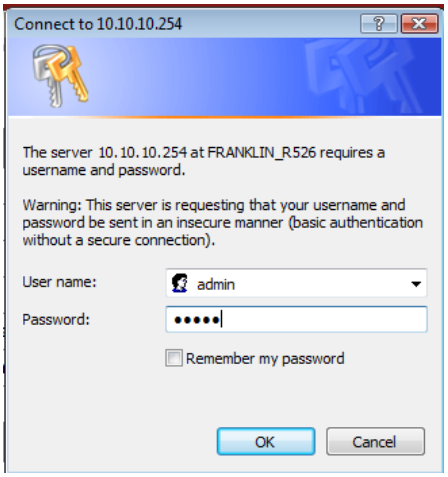
6. Next, open your web browser to *http://10.10.10.254*. This will bring you to the web user interface of the R526.



Device Activation (Windows)

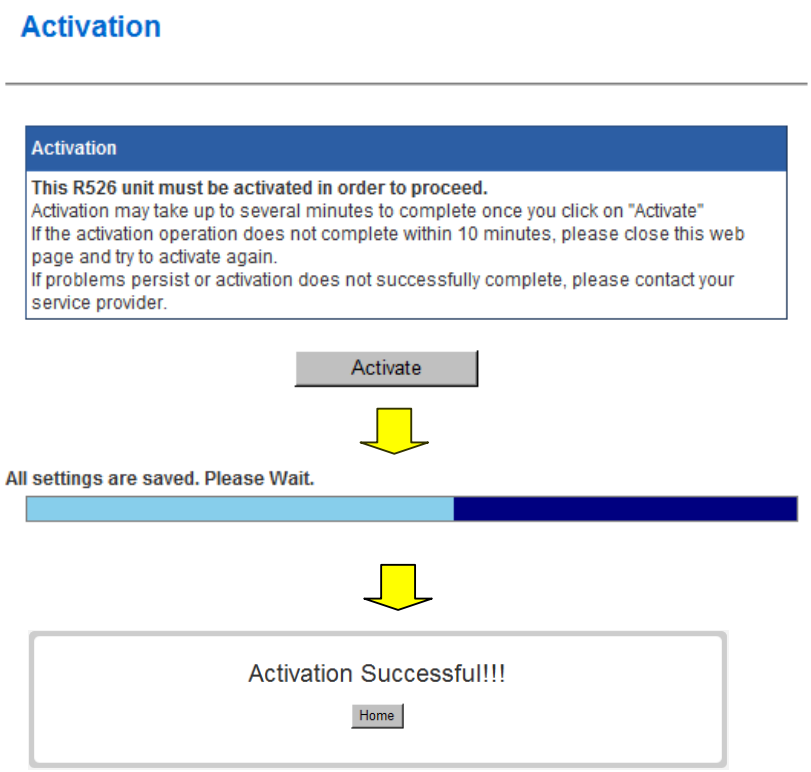
If your device has not been activated at time of purchase, you must activate now.

Click *Login* button. You will be prompted to enter your username and password. The default Username and Password is admin/admin.


Connect to 10.10.10.254
The server 10.10.10.254 at FRANKLIN_R526 requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name:
admin
Password:
Remember my password
OK
Cancel

Click *OK*. Then, you will see the pop up screen requiring Activation as below.

If you see the below notice, click *Activate.*


Activation
Activation
This R526 unit must be activated in order to proceed.
Activation may take up to several minutes to complete once you click on "Activate"
If the activation operation does not complete within 10 minutes, please close this web page and try to activate again.
If problems persist or activation does not successfully complete, please contact your service provider.
Activate
All settings are saved. Please Wait.
Activation Successful!!!
Home

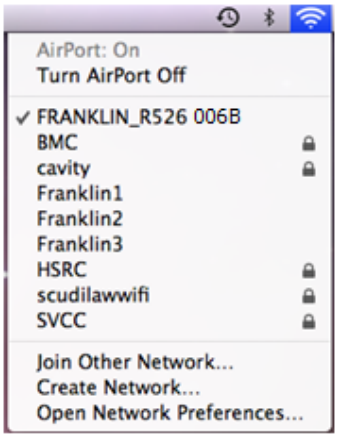
After successful activation, Web browser of the R526 will open as below.

Device Activation (Mac Users Only)

1. Go to Airport Icon at the right upper corner of desktop tap menu and click to open.

Airport on **Airport off**

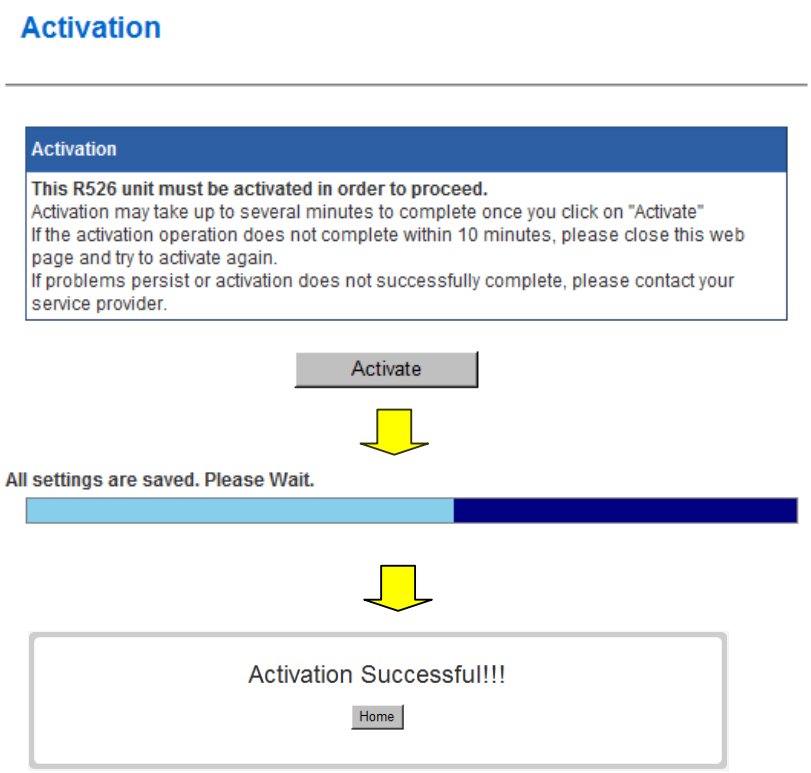
Ensure your Airport mode is turned on to allow your computer to search for available WiFi networks.



2. Choose “Open Network Preferences” on the drop-down menu and select “FRANKLIN_R526 XXXX” of your Wi-Fi network and apply it.

3. Now that you are connected, and you need to activate before using.

If you see the below notice, click *Activate.*

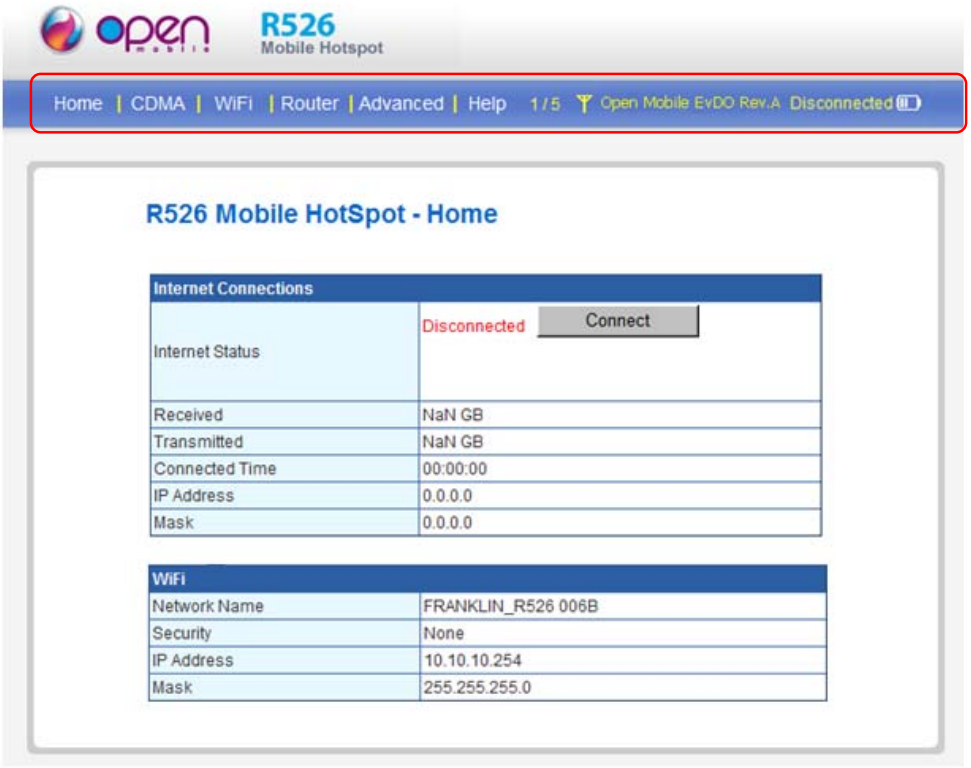

Activation
Activation
This R526 unit must be activated in order to proceed.
Activation may take up to several minutes to complete once you click on "Activate"
If the activation operation does not complete within 10 minutes, please close this web page and try to activate again.
If problems persist or activation does not successfully complete, please contact your service provider.
Activate
All settings are saved. Please Wait.
Activation Successful!!!
Home

After successful activation, Web browser of the R526 will open as below.

The Browser Interface and Settings

Open your Web browser and enter *http://10.10.10.254* into the address window.

The browser interface will open.



Your R526 uses a browser interface to configure the device.

The browser interface lets you:

- View the status of aspects of your network.
- Set up WEP or WPA security, MAC filtering, port filtering, and port forwarding.
- Set up a hotspot to allow a maximum of five connections to your device without having to share your network name and network key.

Home

The Home screen is the first screen you see after logging in to the browser interface. It is the main point of entry for all your work in the browser interface. The menu bar runs horizontally along the top of the browser interface. It shows how many users or WiFi embedded devices are connected. It also displays information about your device's connection strength and battery level.

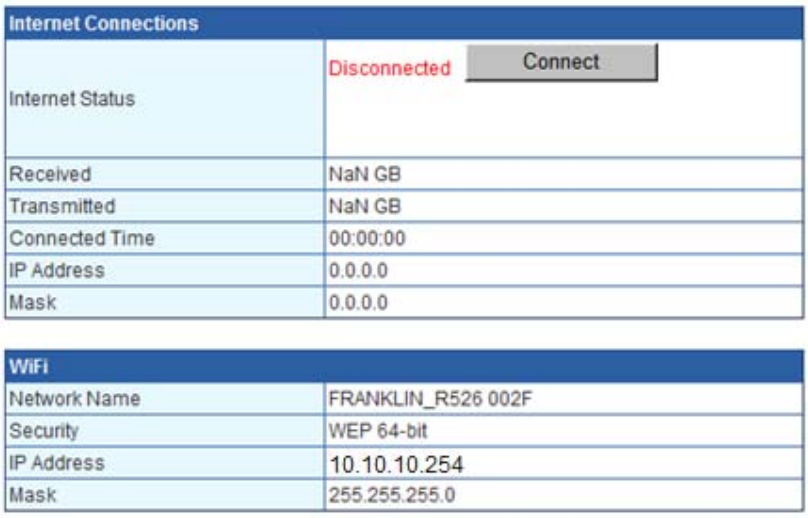
CDMA

The CDMA menu allows you to update your Preferred Roaming List(PRL) – provided by your carrier, and provides internet connection information as well and traffic counters.

- *Status*

The CDMA status screen is divided into two sections.

Internet Connections



Internet Connections	
Internet Status	Disconnected Connect
Received	NaN GB
Transmitted	NaN GB
Connected Time	00:00:00
IP Address	0.0.0.0
Mask	0.0.0.0

WiFi	
Network Name	FRANKLIN_R526 002F
Security	WEP 64-bit
IP Address	10.10.10.254
Mask	255.255.255.0

Click *Connect* to connect to your 3G network.

The R526 comes pre-configured with the information required to connect to the Open Mobile network.

It will not normally require any additional configuration to the basic settings unless you are using the device behind a corporate firewall, and this may require the appropriate proxy server settings to be modified.

The Internet Connection section also displays the following information:

- Number of bytes received and transmitted
- Duration of the current connection
- The device's IP address and subnet mask
- Gateway IP address
- DNS server IP address

Traffic Counters

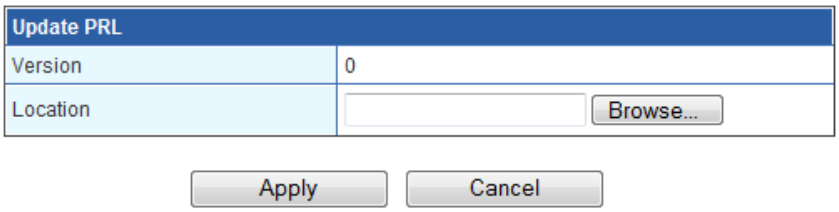
The Traffic Counters section displays the following:

- Date and time connection was made
- Total duration of connection
- Total data bytes received and transmitted, plus the total for both directions

  This section displays both a cumulative (life time) count and a count for the current session (which can be reset).

- *Configuration*

The Configuration menu allows you to upgrade your Preferred Roaming List. (PRL) – the PRL is provided by your carrier.



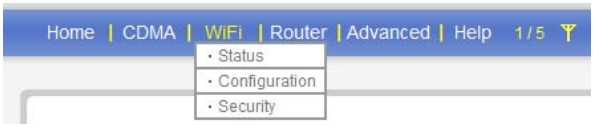
- *Diagnostics*

This menu gives you the 3G modem information.

CDMA Connections	
Connection Status	Dormant
Service Type	EvDO Rev.0
Roaming	No
RSSI	-63dBm

CDMA Modem	
Manufacturer	FRANKLIN
Model	R526
Firmware Version	SB8189DT01
ESN	38EC9D4E
MEID	0
MDN	1193532680
PRL Version	10003
Battery Level	97%

WiFi



The WiFi menu allows you to view status information for your WiFi network and configure your hotspot.

- *Status*

This Status menu gives you following status information:

- Network Name (also known as SSID)
- Security method in use
- IP address and mask of the wireless browser interface

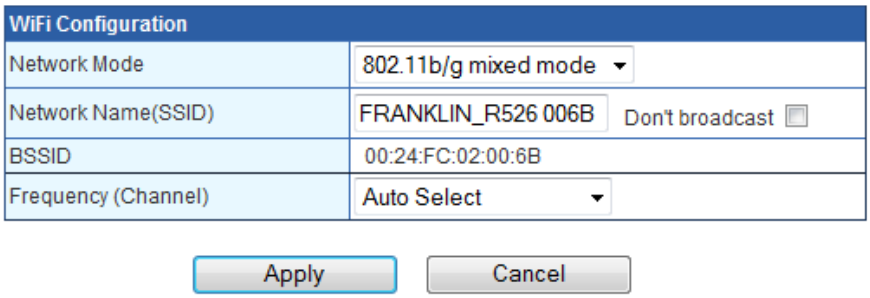
- Users (clients) information currently connected to the device

WiFi Status	
Network Name	FRANKLIN_R526 006B
Security	None
IP Address	10.10.10.254
Mask	255.255.255.0

WiFi Clients			
Hostname	MAC Address	IP Address	IP Type
swlee64	00:15:AF:8A:AC:F1	10.10.10.103	DHCP

- *Configuration*

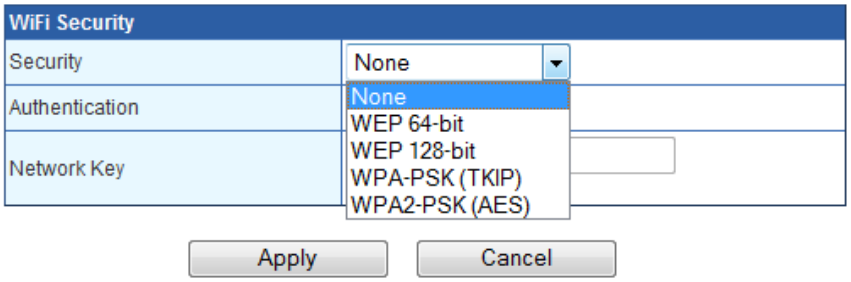
This menu allows you to select or modify WiFi profile.



- Network Mode: The type of wireless networking you are currently using. You can choose either mode among 802.11b only, 802.11g only, 802.11b/g mixed mode. The default mode is 802.11b/g mixed mode.
- Network Name(SSID): You can change or input new Network Name (SSID). System default SSID is "FRANKLIN_R526 XXXX". If you check *Don't broadcast* box, WiFi clients who try to access the R526 network can not see this SSID.
- BSSID: MAC address of R526
- Frequency(Channel): The radio channel that the device is using. This should be usually set to Auto and left unchanged. Available channels are Auto and 1 to 11

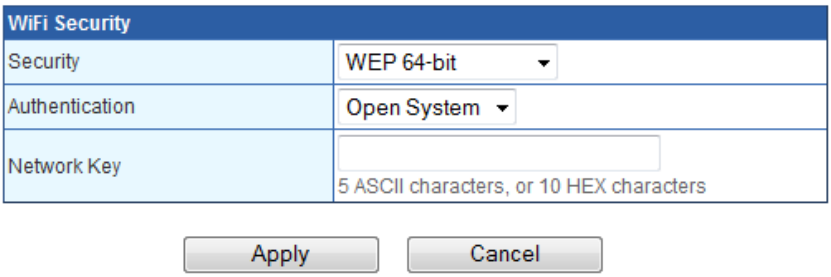
- *Security*

You can use WEP (64- or 128-bit), WPA, or WPA2 security.

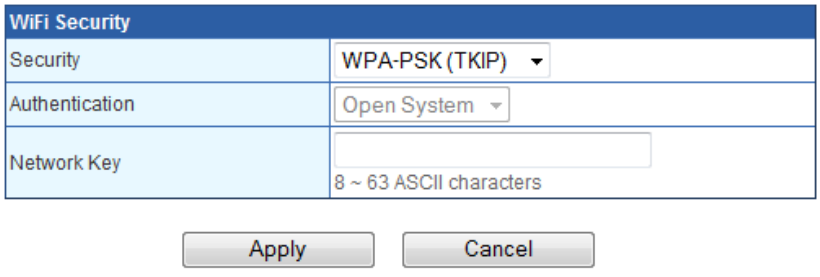


- Security: The type of security the router is using. This applies to the Secure and the Temporary Hotspot profiles.
- Authentication: There are 2 different types of Authentication.
  1) Open System: Open for all clients
  2) Shared Key: Open only for those who were chosen as a Shared Key.
- Network Key: Passcode or password used to access the network. The required format varies by type of security.

WEP (64bit or 128bit) : Traditional WiFi security mode.



WPA (TIKP or AES) : New WiFi security mode.



1. Select a security protocol from the Security list. (The Encryption box displays the corresponding encryption level.)
2. Enter a new network key in the Network Key box. (Permissible characters are listed in gray just under the box.)
3. Click *Apply*.

Note.

When you click Apply, you will need to reconnect to your router by closing your current view and re-opening a

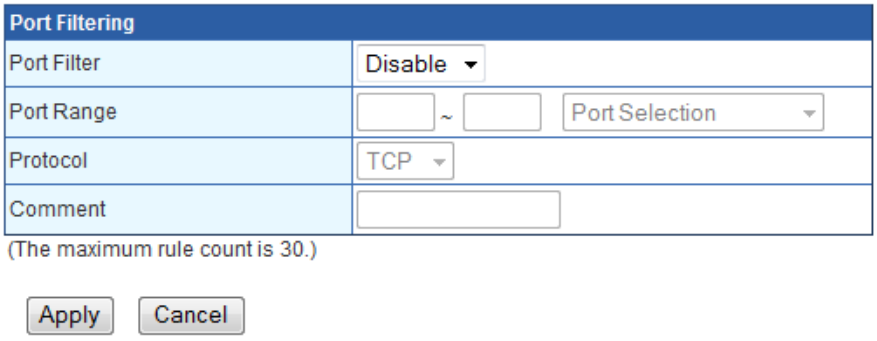
browser connection to http://10.10.10.254.

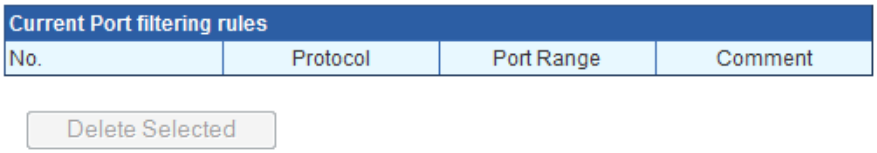
Router

The Settings menu allows you to set Port Filtering and MAC Filtering function.

- *Port Filter*

Port filtering allows you to conserve bandwidth by preventing non-business applications from accessing the Internet, and to prevent applications such as online games from accessing the Internet.

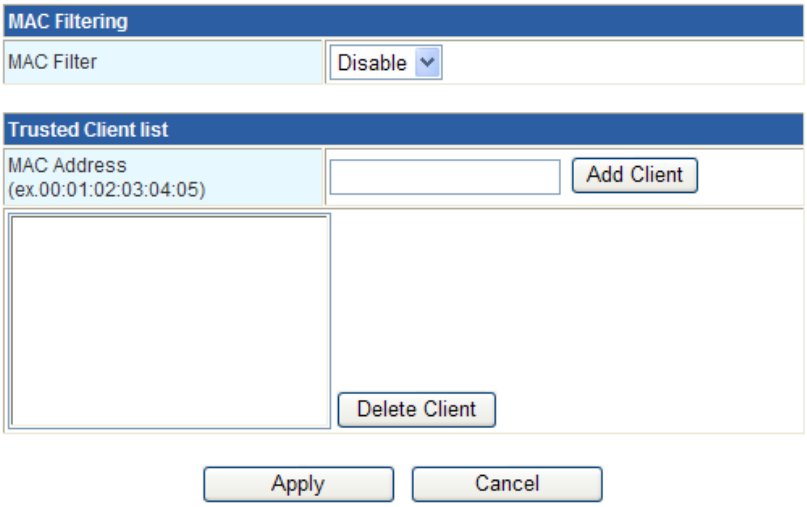




1. From the Port Filtering screen, select the Enable Port Filtering check box.
2. Select the check boxes for the applications for which you want to allow access to the Internet.
3. Click *Apply*.

- *MAC Filter*

MAC Filter allows you to limit access to your device to only those devices with a specified MAC address (a unique code assigned to hardware such as network adapters).



Finding the MAC Address

The MAC Address is also known as a hardware or physical address for a device, usually a network adapter.

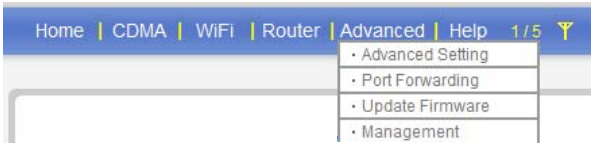
It consists of six pairs of numbers and letters (for example, 00:21:9B:1C:64:34).

You can view the MAC address for any device connected to the R526 device in the WiFi Clients section of the WiFi Status screen. (See "WiFi Clients" on page 13.)

Note.

When you enable this feature for the first time, ensure you add your wireless MAC first, then click Apply.

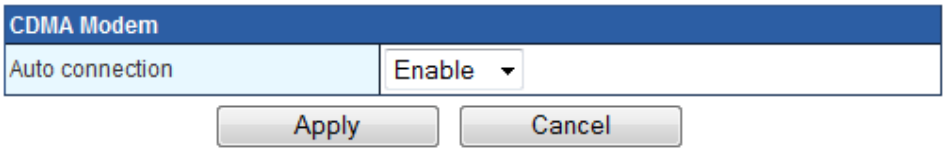
Advanced



- *Advanced Settings*

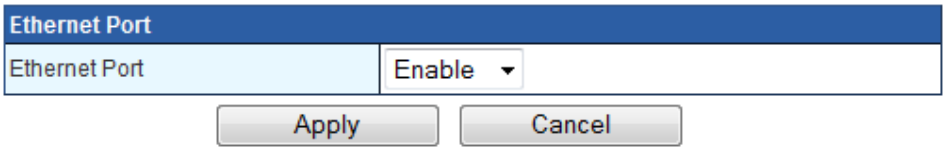
This menu allows you to configure your device to enable auto connection, Ethernet Port, Power Saving, and VPN Passthrough.

CDMA Modem



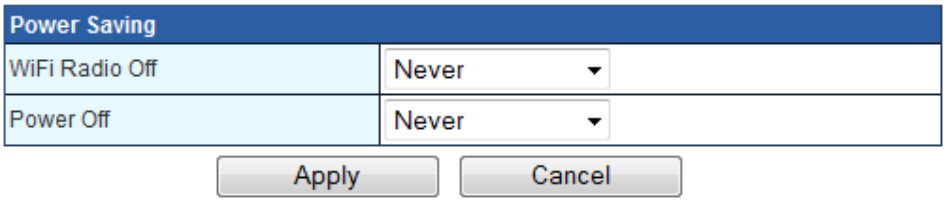
Enabling *Auto connect* allows your device to connect to your 3G network automatically when it is turned on.

Ethernet Port



Enable the *Ethernet Port* when you want to connect your compute directly to the R526 using a LAN (RJ45) cable. Default is 'Disable'.

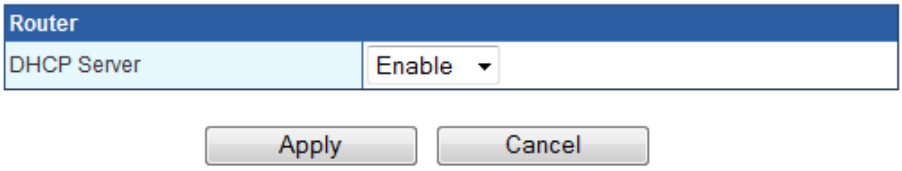
Power Saving



- WiFi Radio Off - You can use the Radio Off mode to customize your device to switch to a low power mode when you don't use the internet. There are 10 minute increments from 10-60 minutes. Select *Never* to disable this power saving feature.
  If you want to switch the WiFi Radio on earlier than the time you set in this menu, you can easily push the power button one time lightly. A blue WiFi LED of indicates that R526 is ready to connect.
- Power Off - The Power Off mode allows you to choose when your device will automatically power off, to save battery life, due to inactivity. There are 10 minute increments from 10-60 minutes you can select. Select *Never* to disable this power saving feature.

Router

- DHCP Server - Enabling the DHCP server allows the device to automatically assign a local IP address to a new device joining your network (such as a wireless printer or an additional laptop). When the DHCP server is disabled, you will have to assign static IP addresses to all devices on your network.



Note.

If you want to disable the DHCP, please set the IP, Subnet Mask, Gateway as below.

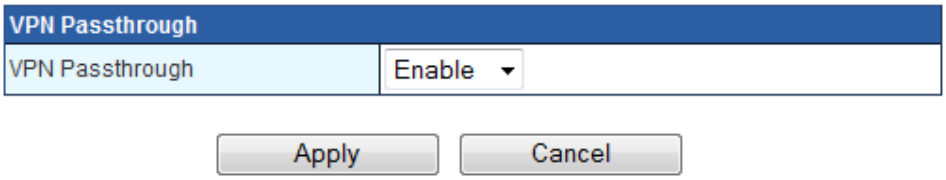
IP : 10.10.10.1 ~ 10.10.10.253

Subnet Mask : 255.255.255.0

Gateway : 10.10.10.254

VPN Passthrough

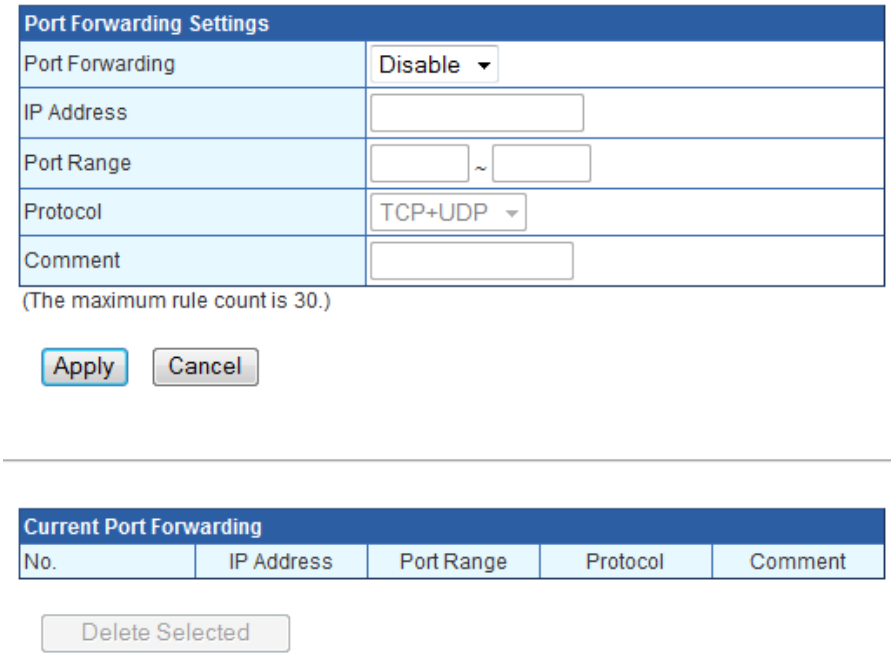
- VPN passthrough is required if you are going to connect to a VPN (such as a corporate system).



- *Port Forwarding*

Port forwarding allows designated users or applications to reach specified servers, such as FTP and DNS servers, on your computer. Also, some online games require incoming access to work properly.

- Enable the Port Forwarding Settings and type the local static IP address of the device hosting the application IP.
- Click *Apply* when you have finished adding applications.
- You can comment on this Port Forwarding.

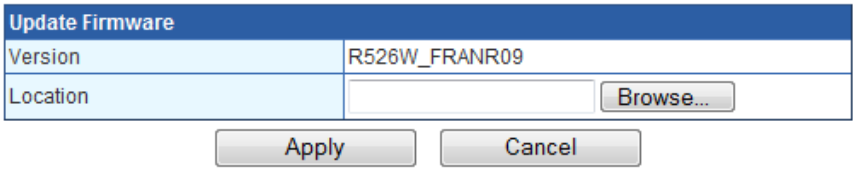


Note.

You cannot use port forwarding with some standard data accounts. To use port forwarding, you may need to request a static IP address from your carrier / service provider..

- *Upgrade Firmware*

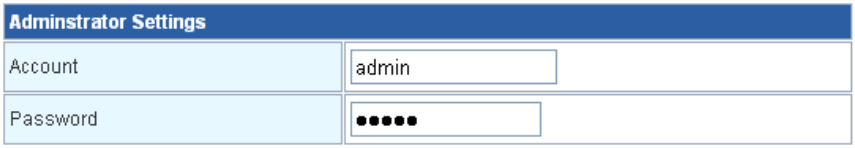
You can upgrade your device's configuration file to your computer.



- *Management*
  - Administrator Settings: You can create a new administrator's name and password.

Note.

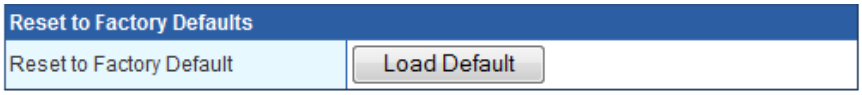
When you change the default settings, keep you new information in a safe place.



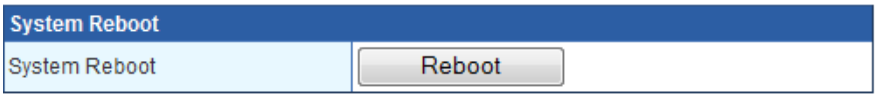
  - Export Settings: It allows you to backup your settings to your PC, memory stick, CD, etc.

  - Import Settings: You can restore previously saved/backed up settings.

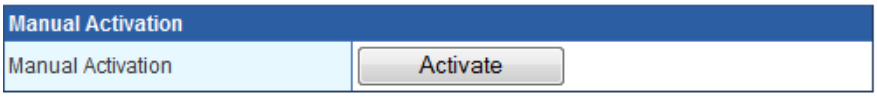
  - Reset to Factory Defaults: Click *Load Default* to reset your R526 to the defualt factory settings.



  - System Reboot: Click *Reboot* to restart R526 router.



  - Manual Activation: It allows you to re-activate your unit. See Section of this guide for activation instructions.



Help

Help menu gives you the Quick Start Guide, full User Guide.

- *Quick Start Guide*
- *User Guide*

Part 2

Warranty

Manufacturer's Limited One-Year Warranty:

Open Mobile (the company) warrants to the original retail purchaser of this device, that should the product or any part thereof, during normal consumer usage conditions, be defective in material or workmanship that results in product failure within the first twelve (12) month period from the date of purchase, such defects will be repaired or replaced, with a new or refurbished product at the Company's discretion, without charge for parts and labor directly related to the defect(s). This warranty extends to consumers who purchase the product in the United States, Mexico, or Canada and it's not transferable or assignable. This warranty does not apply to:

(a) Product subject to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;

(b) Products whose mechanical serial number or electronic serial number has been removed, altered, or defaced;

(c) Damage from exposure to moisture, humidity, excessive temperature or extreme environment conditions;

(d) Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the company;

(e) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts;

(f) Product damaged from external causes such as fire, flooding, dirt, sand, weather conditions, battery leakage, blown fuse, theft or improper usage of any electrical source.

The Company disclaims liability for removal or reinstallation of the product, for geographic coverage, for inadequate signal reception by the antenna or for communications range or operation of the cellular system as a whole.

When sending your wireless device to Open Mobile' authorized distributions for repair or service, please note that any personal data or software stored on the device may be inadvertently erased or altered. Therefore, we strongly recommend you make a back up copy of all data and software contained on your device before submitting it for repair or service. This includes all contact lists, downloads (i.e. third-party software applications, games and graphics) and any other data added to your device. Open Mobile is not responsible for and does not

guarantee restoration of any third-party software, personal information or memory data contained in, stored on, or integrated with any wireless device, whether under warranty or not, returned to Open Mobile' authorized distributors for repair or service. To obtain repairs or replacement within the terms of this Warranty, the product should be delivered with proof of Warranty coverage (e.g. dated bill of sale), the consumer's return address, daytime phone number and/or fax number and complete description of the problem, transportation prepaid, to the Company at the address shown below or to the place of purchase for repair or replacement processing. In addition, for reference to an authorized Warranty station in your area, please call (800)959-3558 in the United States.

The extent of the company's liability under this warranty is limited to the repair or replacement provided above and, in no event, shall the company's liability exceed the purchase price paid by purchaser for the product.

Any implied warranties, including any implied warranty of merchant ability or fitness for a particular purpose, shall be limited to the duration of this written warranty. Any action for breach of any warranty must be brought within a period of 18 months from date of original purchase, but in no case shall the company be liable for a special consequential or incidental damages for breach of this or any other warranty, express or implied, whatsoever. The company shall not be liable for the delay in pending service under this warranty or loss of use during the time the produce is being repaired or replaced.

No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

Some states or provinces do not allow limitations on how long an implied warranty lasts on the exclusion or limitation of incidental or consequential damage so the above limitation or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights, which vary from state to state or province to province.

Franklin's Authorized Service Center Address:

5440 Morehouse Dr.STE 1000

San Diego, CA 92121

Part 3

FAQ

Franklin Wireless

Q: What is the R526's main purpose unlike other routers?

A: The R526 is a portable WiFi router that fits in the palm of your hand. It will allow you to connect up to 5 devices to access the internet, such as laptops, digital cameras, portable game consoles or mobile phones.

Q: What networks does the R526 operate on?

A: The R526 operates on 3G wireless networks.

Q: What are the air holes on the both side of the R526?

A: The air holes are designed to reduce the heat generated by the device itself while it used. Keep the device away from open flames, dusty conditions, and keep it dry for optimal performance.

Q: What kind of security is available with the R526?

A: The R526 supports advanced WiFi security protocol through standard methods such as WiFi Protected Access (WPA & WPA2) and the previous method of Wired Equivalent Privacy (WEP).
More advanced settings are available in the Web based user interface.

Q: What if the user forgets their R526 password?

A: The R526 can be reset by powering on the device, remove the battery cover, and depress the small button near the bottom of the battery using a paper clip or pen and hold for 3 seconds. The Power LED will turn off-and-on several times to indicate reset is successful. The unit will power up with the factory default configuration.

Q: What might the owner of the R526 need to be aware of before sharing with multiple devices?

A: With multiple devices or used as a temporary hotspot:

- If there are several heavy data users on at the same time, you may notice a degradation in performance
- Users are not allowed to access more than 5 devices to the R526 in order to keep the devices' data speed stable enough to be communicated without a problem.
- Be aware these users are contributing to your data usage. You may want to check your account online to see how much of a difference it is making and how close you are to any usage caps that may apply under your Open Mobile network connection plan.
- If all are accessing a R526 that is using the battery, the battery will drain faster than the average of 3 hours usage time for one user.

Q: Can a user connect the R526 to their computer with a USB cable?

A: When the R526 is tethered via a USB cable to a computer, the device will not function as a hotspot. But please note that in this mode, the R526 can be charged, or re-charged only.

Q. What is the LAN port of R526 can be used for?

A: The LAN Port of the R526 is users who have a laptop or desktop computer which does not have WiFi capability.

Q: What is the average battery usage time?

A: The battery will have on average 3 hours of active use time when connected to a single device and will discharge more rapidly as additional devices are connected (up to 5 WiFi devices are acceptable). There is 7.5 hours of standby time.

Q: Why the R526 turns off while in used and it wouldn't turn on again?

A: The red solid power LED indicates the battery is below 20% and if it's blinking, it indicates the R526 will turn off very soon. After the battery has run down, it turns off automatically. So you need to charge the battery using USB Power Adapter.

Please refer to the Quick Start Guide on page 9.

Q: How close does the user's WiFi enabled device need to be from the R526?

A: The device will need to be within 16 feet or 5 meters of the WiFi device to work. So a user can keep the R526 in their pocket, laptop bag, or sitting on a desk or window ledge across a room (for better coverage).

Q: Does the R526 support voice calls, fax and/or text messaging?

A: Voice calls, text messaging and fax are not supported.

Q: Can the R526 be used for memory storage?

A: The R526 does not support onboard or removable memory storage.

Q: How long does a user need to charge the battery before they begin using?

A: The battery must be fully charged before using the R526 for the first time. We recommend a minimum of 2 hours charging time before first use. After the initial use and set-up, you may use with the battery alone or with the battery and the USB Power Adapter.

Q: Does the R526 require software installation?

A: The R526 comes with a browser URL that allows the user to configure the device.

You can activate, establish security and set more advanced settings without installing any software.

Q: What does the user of the R526 need to begin to do configuration and activation?

A: See section of this manual for activation instructions.

Q: What if the R526 can not access the internet even though the unit has been activated?

A: Verify your network & signal strength for optimal performance.

Q: When will a user of the R526 need to access the browser interface?

A: The R526 browser interface will only need to be accessed or used when configuring your device for the first time or changing the security settings or establishing more advanced settings.

Q: Why does the R526 gets warm?

A: The R526 has two radios inside: the 3G CDMA radio and the WiFi radio. In fringe areas of low 3G coverage, the

transmit power will be at the max and therefore generate more heat. The device has been environmentally tested and approved by the FCC.

Part 4

Glossary

● **802.11 (b, g, n)** — A set of WLAN communication standards in the 2.4, 3.6 and 5 GHz frequency bands.

● **Access Point (AP)** — A device that allows wireless communication devices to connect to a wireless network using a standard such as WLAN.

● **DHCP** — Dynamic Host Configuration Protocol. A network application protocol used to obtain configuration information for an Internet Protocol network.

● **DHCP Server** — A server that uses DHCP to obtain configuration information for operation in an Internet Protocol network.

● **DNS** — Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.

● **ESN** — Electronic Serial Number. A unique 32-bit number embedded in a wireless device that identifies the device.

● **MEID** — Mobile Equipment Identifier. The unique second-generation serial number assigned to the R526 for cellular network use.

● **Firmware** — A program that internally controls an electronic device.

● **FTP** — File Transfer Protocol. A network protocol for exchanging files over a TCP network.

● **Gateway** — A network point that acts as an entrance to another network that uses a different protocol.

● **Host Name** — The unique name by which a network-attached device is known on a network.

● **Hotspot** — A WLAN access point or area for connecting to the Internet.

● **HTTP** — Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web over the Internet.

● **IP address** — Internet Protocol address. The address of a device attached to an IP network (TCP/IP network).

● **LAN** — Local Area Network. A type of network that lets a group of computers, all in close proximity (such as inside an office building), communicate with one another.

● **MAC Address** — A number that uniquely identifies a given network adapter on a LAN. MAC addresses are 12-digit hexadecimal numbers.

● **MIN** — Mobile Identification Number. It refers to the 10-digit unique number that a wireless operator uses to identify the mobile phone. A MIN is a number that uniquely identifies a mobile working under TIA standards for Cellular and PCS technologies

● **MSID** — Mobile Station ID. A number provisioned by a service provider to a mobile phone that identifies that

phone to the network.

● **MSL** — Master Subsidy Lock. A numeric code for accessing certain phone settings.

● **NAI** — Network Access Identifier. A standard way of identifying users who request access to a network.

● **Network Mask** — A number that allows IP networks to be subdivided for security and performance.

● **NNTP** — Network News Transfer Protocol. An Internet application protocol for reading and posting Usenet (newsgroup) articles.

● **POP** — Post Office Protocol. An Internet protocol for retrieving email from a remote server over a TCP/IP connection.

● **Port** — A virtual data connection used by programs to exchange data.

● **Port Forwarding** — A process that allows remote devices to connect to a specific computer within a private LAN.

● **Port Number** — A number assigned to a user session and server application in an IP network.

● **Protocol** — A standard that enables connection, communication, and data transfer between computing endpoints.

● **PPTP** — Point-to-point Tunneling Protocol. A method for implementing virtual private networks that does not provide confidentiality or encryption.

● **PRL** — Preferred Roaming List. A list that your wireless phone or device uses to determine which networks to connect with when you are roaming.

● **RFB** — Remote Frame Buffer. A protocol for remote access to graphical user interfaces.

● **Router** — A device that connects two networks.

● **RTP** — Real-time Transport Protocol. A packet format for streaming multimedia over the Internet.

● **SMTP** — Simple Mail Transfer Protocol. An Internet standard for email transmission across IP networks.

● **SSID** — Service Set Identifier. The name assigned to a WLAN network.

● **TCP** — Transmission Control Protocol. A core protocol for transmitting and receiving information over the Internet.

● **TCP/IP** — Transmission Control Protocol/Internet Protocol. A communications protocol developed under contract from the U.S. Department of Defense to internetwork dissimilar systems.

● **Telnet** — Telecommunication Network. A network protocol used on the Internet or on local area networks.

● **TFTP** — Trivial File Transfer Protocol. A file transfer protocol with a subset of FTP functionality.

● **UDP** — User Datagram Protocol. A simple transport protocol used to transfer information on the Internet.

● **VNC** — Virtual Network Computing. A graphical desktop sharing system that uses the RFB protocol to remotely control another computer.

● **VPN** — Virtual Private Network. A secure private network that runs over the public Internet.

● **VPN Passthrough** — A feature that allows a client to establish a tunnel only with a specific VPN server.

● **WAN** — Wide Area Network. A public network that extends beyond architectural, geographical, or political boundaries (unlike a LAN, which is usually a private network located within a room, building, or other limited area).

● **WEP** — Wired Equivalent Privacy. An IEEE standard security protocol for 802.11 networks. Superseded by WPA and WPA2.

● **WLAN** — Wireless Fidelity. Any system that uses the 802.11 standard developed and released in 1997 by the IEEE

(Institute of Electrical and Electronics Engineers).

● **WLAN Client** — A wireless device that connects to the Internet via WLAN.

● **WLAN** — WLAN LAN. A typically low-power network that transmits a wireless signal over a span of a few hundred feet and usually only to stationary devices.

● **WPA/WPA2** — WLAN Protected Access. A security protocol for wireless 802.11 networks from the WLAN Alliance.

● **WWAN** — Wireless Wide Area Network. Wireless connectivity to the Internet achieved using cellular tower technology. This service is provided through cellular providers. WWAN connectivity allows a user with a laptop and a WWAN device to surf the Internet, check email, or connect to a virtual private network (VPN) from anywhere within the regional boundaries of the cellular service.